

Exhibit E: September 24, 2010 IEPA Response to the August 20, 2010 Site Investigation Report/ Remediation Objectives Report/ Remedial Action Plan and Subsequent Submittals and Responses

Attached is the September 24, 2010 response by IEPA. Subsequent submittals by Fehr-Graham and Associates and responses by IEPA can be obtained by contacting Wayne Dust at 815-987-5636 or by e-mail: wayne.dust@rockfordil.gov



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

(217) 782-6761

September 24, 2010

CERTIFIED MAIL

7008 1830 0001 4715 2113

Mr. Wayne Dust
City of Rockford
425 East State Street
Rockford, Illinois 61104

Re: 2010305216/Winnebago County
Rockford/Ingersoll Milling Machine Company
Site Remediation/Technical Reports

2010306550/Winnebago County
Rockford/Ward Pump
Site Remediation/Technical Reports

Dear Mr. Dust:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the document entitled *Site Investigation Report/Remediation Objectives Report/Remedial Action Plan* dated August 20, 2010. The document was prepared by Fehr-Graham & Associates and was received by the Illinois EPA on August 27, 2010 (Illinois EPA Log No. 10-45719).

The aforementioned document is denied. The following comments were generated as a result of this review:

1. Please provide all Parcel Index Number(s) for the newly combined Ward Pump and Ingersoll Milling Machine Company remediation sites.
2. Section 2.3.1 – *Regional Location and Pertinent Boundary Features* in the aforementioned document should provide more detail regarding the surrounding areas that are immediately adjacent to the remediation site in accordance with 35 Illinois Administrative Code (35 IAC) 740.425(b)(2)(C).

3. Section 2.3 - *Site Description* in the aforementioned document should provide more detail regarding the remediation site, including, but not limited to paved areas, other site features besides the site buildings referenced in Section 2.3.1, etc. in accordance with 35 IAC 740.425(b)(2)(C).
4. Section 2.3.3 – *Geology* in the aforementioned document should provide more detail regarding the site specific geologic conditions identified from the site boring logs and as depicted in the geologic cross-sections in Figure 3 in the document in accordance with 35 IAC 740.425(b)(2)(C).
5. Section 2.3.4 – *Hydrogeology* in the aforementioned document states that Fordham Dam is positioned immediately west-southwest of the remediation site appears to have a sustained influence on hydraulic head of the shallow unconfined unit, and groundwater flow direction is away from the Rock River (i.e., Rock River functions as a losing stream east of Fordham Dam). While the limited number of groundwater elevation measurement events appear to support this conclusion, quarterly sampling and historical Rock River elevations in comparison to site groundwater elevations would be needed to verify that the groundwater flow regime has been consistently away from (flowing east-southeast) the Rock River. It should be noted however, that potential impacts from the site to the Rock River appear to be discussed in Sections 5.4, 7.1.3, and 7.2, in regards to the soil component of the groundwater ingestion exposure route and the groundwater ingestion exposure route (i.e., considerations were made regarding potential groundwater flow towards the Rock River or radially from sources). Illinois EPA comments regarding the potential impacts to the Rock River are discussed further below.
6. Figures 11 and 12 in the aforementioned document depict modeled plumes for the contaminants of concern (COCs) that exceed their respective soil component of the groundwater ingestion exposure route remediation objectives and groundwater ingestion exposure route remediation objective. Section 2.3.4 discusses the adjacent surface water body (Rock River) to the west of the site, but does not discuss any potential surface water bodies in the modeled plume areas to the east of the site. Additional information should be provided regarding any additional surface water bodies (Section 3.6.1), and potential impact to these waters, in accordance with 35 IAC 742.320(f) to completely evaluate the groundwater ingestion exposure route.
7. Section 3.0 *Site-Specific Sampling Plan* in the aforementioned document references the Illinois EPA approved Ward Pump Work Plan and Ingersoll Work Plan each dated August 1, 2007. The Illinois EPA offers the following comments in relation to the site-specific sampling plans and the aforementioned work plans:
 - a. The aforementioned Work Plans provide detailed summaries of encountered field conditions for each boring (borings B1-B10 – Ward Pump Work Plan/borings B1-B21 and groundwater wells MW1-MW6 – Ingersoll Work

Plan). In addition, these Work Plans proposed additional soil borings and groundwater monitoring well locations. Section 4.1.1 and 4.1.2 state that 40 soil borings and 12 shallow groundwater monitoring wells have been installed to date. Sections 5.3.1 and 5.3.2 however only reference Figures 7 and 8 regarding soil and groundwater contamination distribution and lack detailed narrative summaries of encountered field conditions for each of the additional borings advanced and groundwater monitoring wells installed since the August 2007 Work Plans. The narrative Sections in 5.3.1 and 5.3.2 should provide similar detail as the detail provided in the Work Plans and discuss the extent of contamination, depth of samples chosen for analysis, etc. in accordance with 35 IAC 740.425(b)(4)(A) and 740.425(b)(5)(C). Based on this discussion, additional soil and/or groundwater sampling may be required.

8. Section 6.1 – *Soil Attenuation Capacity in the aforementioned document* states that the sum of all organic COCs exceeds the default natural organic carbon fraction of soils in 1989 Leaking Underground Storage Tank Incident # 890853 closure samples SA, SB, and FP. Confirmation sampling and/or soil excavation is proposed to address these soil attenuation capacity exceedences. The Illinois EPA offers the following comments in relation to the soil attenuation capacity.
 - a. The Illinois EPA anticipates receipt of the resample results for LUST incident #890853 closure samples which exceeded the default natural organic carbon fraction of soils. The results should include documentation that the samples were collected at the same locations and same depths as the 1989 samples. If resampling is not conducted, then the Illinois EPA anticipates receipt of the soil excavation efforts and confirmation sample results.
 - b. Review of the site boring logs in Appendix D in the aforementioned document show that numerous samples contained staining and/or odors during field investigation activities. A select number of locations/depths with staining and/or odors identified should be analyzed for total petroleum hydrocarbons (TPH) to further demonstrate that the soil attenuation capacity has not been exceeded in other locations of the site in accordance with 35 IAC 742.215(b)(2).
9. Section 7.0 in the aforementioned document states that active remediation efforts will occur at the soil borings/monitoring wells B17/MW2 and B18/MW3 where light non-aqueous phase liquid (LNAPL) occurs on the water table. Enhanced Fluid Recovery (EFR) is proposed to skim the product and to strip adsorbed contaminants from the smear zone using a high capacity vacuum. Additional information is needed regarding the proposed remediation including but not limited to LNAPL thicknesses observed during sampling events, the horizontal extent of LNAPL beyond wells MW2 and MW3, and details of EFR technology reliability, and details of the confirmation sampling plan in accordance with 35 IAC 740.450(c) and (d).

10. Sections 7.0 and 8.1 in the aforementioned document discuss polychlorinated biphenyl (PCB) concentrations in borings B10 and B25 above the Tier 1 residential ingestion RO and propose, in part, to resample boring B25 to verify the PCB concentrations at this location. The Illinois EPA does not concur with the proposal to resample at boring B25 for PCBs. Unlike LUST incident #890853 closure samples that were collected 20+ years ago; PCBs were detected in boring B25 during the October 2007 sampling event. This data should be deemed reliable and appropriate measures should be taken to address the PCB concentrations at this location. Furthermore, the extent of PCB contamination at the site should be discussed in detail. It should be noted that all PCB related issues must be coordinated with USEPA. The Illinois EPA requires that the USEPA approve proposals to address PCB impacts, and it is the responsibility of the Remediation Applicant (RA) to provide documentation from the USEPA that the approach for dealing with PCB concentrations above applicable Tier 1 remediation objectives (ROs) is acceptable, including verification that the proposed engineered barrier will suffice to exclude the pathway.
11. Sections 7.1.3 and 7.2 and Tables 11 and 12 in the aforementioned document discuss, in part, potential impacts to the adjacent Rock River with respect to Derived Water Quality Criteria to determine the potential impact to Acute Aquatic Life Criteria, Chronic Aquatic Life Criteria, Human Threshold, and Human Nonthreshold criteria, where applicable. Furthermore a mass balance approach and discharge values are discussed in the Sections. The use of mass balance approach for evaluation of surface water discharge to the Rock River is considered a Tier 3 approach. This proposed Tier 3 approach must be reviewed by a Review and Evaluation Licensed Professional Engineer (RELPE). Please advise the Illinois EPA whether the RA will enter directly into a RELPE contract, or if a RELPE is requested to be contracted through one of the Illinois EPA contract RELPEs. A cost-estimate will be obtained from the RELPE, which must be approved by the RA, prior to any work being conducted on the Tier 3 proposal. Finally, after RELPE comments are received, the Tier 3 proposal must be evaluated by the Illinois EPA Tier 3 Cleanup Objectives Review and Evaluation Group.
12. Section 8.1 in the aforementioned document states, in part, that Figure 13 depicts the areas of the remediation site that would need an engineered barrier of pavement or three (3) feet of material and the areas where an existing building floor will be utilized. The Illinois EPA offers the following comments on the proposed engineered barriers:
 - a. If three (3) feet of 'material' is used as an engineered barrier to exclude the residential ingestion pathway, this material must be 'clean' and Target Compound List (TCL) analysis of this geologic material must be performed to show concentrations of chemicals meet the Tier 1 residential ROs in accordance with 35 IAC 742.1105(c)(2)(C)(ii). In addition, the sampling

frequency should be conducted at a rate of one (1) TCL sample for 500 cubic yards of geologic material.

- b. The Illinois EPA does not concur with the extent of the proposed engineered barriers depicted on Figure 13. Specifically, Figure 13 shows the lack of engineered barriers in Building 2 and along the west portion of the remediation site. As shown in numerous figures, these locations are void of sampling. Additional sampling should be conducted in these areas and/or the engineered barriers should encompass these areas (i.e., site-wide engineered barriers).
13. Sections 8.3 and 11.0 in the aforementioned document state, in part, that construction of engineered barriers may be used to exclude the soil component of the groundwater ingestion exposure route. Horizontal engineered barriers are not suitable to exclude the soil component of the groundwater ingestion exposure route because they may not prevent completion of the pathway due to, among other items, possible infiltration of water through the barriers, which may cause leaching of contaminants from the underlying soils. The reference to engineered barriers in relation to the soil component of the groundwater ingestion exposure route in 35 IAC 742.1105 generally relates to acceptable use of appropriate vertical engineered barriers to exclude this pathway.
14. The Illinois EPA does not concur with the estimated source width and source length figures (Figures 9 and 10) in the aforementioned document. Specifically, these figures depict, in many cases, source width and source length values as small circles/ovals around the impacted boring that terminate just beyond the location of the borings/wells. The document lacks site-specific sampling data, in many cases, that the source width and length terminate at the circled locations. At a minimum, the circles/ovals should be extended at least $\frac{1}{2}$ the distance to the next boring/groundwater well locations with concentrations of applicable COCs below their applicable soil component of the groundwater ingestion exposure route RO or groundwater component of the groundwater ingestion exposure route RO. In addition, the applicable Tier 2 modeling results in Appendix G should be recalculated with the newly determined source width and length values.
15. The handling of select COCs depicted in Table 11 is somewhat unclear. For example, some of the 'NOTES' in the table state that Tier 2 modeling was not conducted for select COCs exceeding their respective soil component of the groundwater ingestion exposure route based on absent detections in a nearby boring/groundwater well. The concentrations of COCs exceeding their applicable soil component of the groundwater ingestion route ROs must be addressed, regardless if the COCs were not detected in nearby borings/wells under a Tier 2 scenario. The Tier 2 modeling results and Table 11 should be updated appropriately.

16. Page 3 in Appendix F in the aforementioned document states, in part, that indicator contaminants for several inorganics failed at Tier 1 for “dissolved” and SPLP results. Additional clarification should be provided. Specifically, total concentrations of inorganics must be compared to applicable ROs and modeled appropriately if they exceed the groundwater component of the groundwater ingestion exposure route ROs. Dissolved concentrations cannot be used in these instances.
17. The Illinois EPA Project Manager could not duplicate the S17 results included in Appendix G in the aforementioned document. For example, the organic carbon partition coefficient for dibenzo(a,h)anthracene depicted on page 1 of the S17 section was 1020000 l/kg. This organic carbon partition coefficient differs from the organic carbon partition coefficient currently listed in 35 IAC 742 Appendix C. Table E. The S17 equations should be revised based on the currently adopted default chemical and physical parameters.

NOTE:

1. If it is determined that the contaminants of concern at the site model to the Rock River, or other surface water bodies, at concentrations above their respective surface water criteria, a site-specific City of Rockford groundwater ordinance, and appropriate notification, cannot be used to exclude the groundwater ingestion pathway. In accordance with 35 IAC 742.320(f) the groundwater ingestion exposure route can only be excluded, in part, if the concentrations of COCs in groundwater discharging into a surface water body meet the applicable surface water ROs. This issue should be further discussed after review of the mass balance model and the revised Tier 2 equations discussed above.

All future submittals to the Illinois EPA should include one (1) original and one (1) copy of each document.

The Illinois EPA requests a fourteen (14) day, at a minimum, advance notice of any remedial activities at the Remedial Site so Agency personnel can schedule site visits during those activities.

If you have any questions, please feel free to contact me at (217) 557-1409 or e-mail me at Todd.Hall@illinois.gov.

Sincerely,



Todd Hall, Project Manager
Voluntary Site Remediation Unit B
Remedial Project Management Section
Division of Remediation Management
Bureau of Land

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cc: Fehr-Graham & Associates
Attn: Mr. Jeffrey Ogden
1920 Daimier Road
Rockford, Illinois 61112

Bureau of Land File

EXHIBIT F
DRAFT

COMMUNITY RELATIONS PLAN

FORMER INGERSOLL MANUFACTURING SITE ON SOUTH WATER STREET

1. OVERVIEW

The purpose of this Community Relations Plan (CRP) is to delineate the communication strategies that will address the needs and concerns of the citizens of Rockford, particularly the residents who are directly or potentially affected by the proposed removal of asbestos contamination present at the former Ingersoll Manufacturing Site located in the City of Rockford on South Water Street. This CRP provides an overview of how the City has involved and will continue to involve affected residents, City officials, and local organizations in the decision-making process regarding the environmental remediation efforts at the site. As with the dissemination of information and the coordination and facilitation of community outreach throughout the previous activities on the site, the City is primarily responsible for implementing community relations pertaining to the site.

Active residents and institutions in the community are essential resources for the success of the CRP as they hold positions of responsibility within the community. The City of Rockford perceives these citizens and organizations as key points of contact and communication. The success of the environmental remediation and subsequent redevelopment of the former Ingersoll site hinges on informed citizen involvement in each step of the remediation process.

2. SPOKESPERSON AND INFORMATION REPOSITORY

The spokesperson for this project is Mr. Wayne Dust, Planning Administrator, who may be contacted at:

The City of Rockford
425 East State Street
Rockford, Illinois 61104
(815) 987-5636
wayne.dust@rockfordil.gov

The Information Repository is located at the Rockford Public Library, 215 S. Wyman St, and the Montague Branch Library at 1238 S. Winnebago St., both in Rockford, Illinois.

3. SITE DESCRIPTION AND HISTORY

The former Ingersoll site, 301 and 3xx S. Water Street, City of Rockford, Winnebago County, Illinois, is located within the southwest quarter of Section 23, Township 44 North, Range 1 East, 3 PM. This site occupies approximately 5 acres and located approximately one quarter mile southeast of downtown Rockford. The site is bounded by Walnut Street to the North, the Union Pacific N-S Rail Line to the East, the Union Pacific E-W Rail Line to the South, and the Rock River to the West. South Water Street dead ends at the south edge of the site and are included in this site.

This Community Relations Plan focuses on remedial activities in the core of the remaining former manufacturing structures. These structures have been grouped according to their location. The Buildings west of S. Water Street (the West Buildings) include two structures that are connected with a major passageway. The southern building is triangular in shape and has approximately 34,000 square feet. The northern building is a larger rectangular-shaped building approximately 77,000 square feet. Together, they are addressed to 301 South Water Street and will be referred to as the “West Buildings”. Please see the attached site plan. To the east of South Water Street are two smaller structures which are connected but do not have a passageway between them. These buildings, a 29,000 square foot two-story structure and a 1200 square foot one story structure are referred to as the “East” buildings.

W.F. and John Barnes (Barnes) originally developed the northern part of the site while Ward Pump developed the southern portion of the site. During the 1880s, the two manufactures built a variety of machines and equipment used to manufacture or produce other items. Barnes, for example, developed and built a variety of pedal- powered drill presses.

During the 1960’s Ingersoll purchased the site and constructed the large rectangular building on the north portion of the site as a location for machine assembly. Ingersoll vacated the property during the 1990’s. During 2002, the City of Rockford purchased the site primarily to control the over 1000 feet of Rock River frontage with the intent of opening the riverfront to the general public in some way.

Environmental Assessments have been in process for the site during the last four years. Phase II Environmental Site Assessment work was performed during 2008, and a Cleanup Grant was received during 2010. The Site Investigation Report/

Remedial Objectives Report/ Remedial Action Plan (SIR/ROR/RAP) was submitted to the Illinois EPA Site Remediation Program during August of 2010. A response was received on September 24, 2010.

The IEPA SRP has requested additional soil borings along the east side of the building located west of South Water Street. Soil removal will be required at 3 sites, and bid specs are being prepared.

The Asbestos Confirmation Sampling Report was completed during August of 2010, and bid specs are being prepared.

4. NATURE OF THREAT TO PUBLIC HEALTH

The Phase II Environmental Site Assessment revealed petroleum product under the main building. This petroleum must be removed to protect the adjacent Rock River. Asbestos must be removed prior to the adaptive reuse of the main structure. Additional soil borings along South Water Street have determined that soil excavation at three sites will be needed to prevent potential exposure pathways.

5. COMMUNITY PROFILE

The City of Rockford, Illinois is a community of approximately 153,000 people and is generally located in the southeast corner of Winnebago County, at the intersections of US 20 and I-90 with Illinois 251 and I-39. The City is approximately 90 miles northwest of downtown Chicago and 70 miles northwest of O'Hare International Airport.

Like many Illinois communities, the economic viability of Rockford was historically linked to older industry within the community, in particular to the industrial sites along the Rock River starting in Downtown Rockford and continuing south along the river for about one and one fourth miles on the west bank of the Rock River and, intermittently, much further north and south on the East bank of the Rock River where the Ingersoll buildings are located. As manufacturing and transportation have changed through the years, these older industrial area has struggled to remain economically viable in the face of increasing competition and global changes to industrial-based economies. The majority of the manufacturing plants in this corridor have been abandoned or are underutilized while the companies have either relocated out of state, broke up into smaller companies, been absorbed by larger firms, gone out of existence , downsized and relocated to greenfield sites or some combination of many of these company changes. Ingersoll, as an example, broke into smaller new companies after this site was acquired by the City. One of these smaller new companies built a new plant at a Greenfield site in a neighboring community while another was

established at the historic original Ingersoll complex in Rockford, though at a smaller scale.

The Ingersoll site is located in Census Tract 10. The Ingersoll site has been vacant or used for storage for the past ten years. Immediately to the south of the Ingersoll site is the vacant Commonwealth Edison Site that had once been occupied by a large coal-fired power generating plant and a hydroelectric power plant. Both sites have considerable frontage on the Rock River and have considerable redevelopment potential once environmental issues are addressed.

Based on the 2000 US Decennial Census data, median income for households in Census Tract 10, is only \$15,172, while the figure for the City of Rockford as a whole is \$37,667 and for Winnebago County as a whole is \$43,886. Additionally, the percentage of families living below the poverty line in Census tract 10 is 37.2%, compared to the City percentage of 10.5%. This trend continues in regard to persons below poverty level; in Census Tract 10 this measure is 41.5 %, while the City as a whole has 14% of the respective persons below the poverty level. Additionally, 53 % of the population in Census Tract 10 is a member of a minority group, compared to 27% in the City as a whole and 18% in Winnebago County as a whole. Demographic statistics for Rockford show that the City has experienced slow population growth due entirely to annexations, while surrounding communities have experienced rapid growth, both in Winnebago County and surrounding counties. Census Tract 10 has experienced population and housing unit loss during the past few decades.

6. CHRONOLOGY OF COMMUNITY INVOLVEMENT

Following City acquisition during 2002, the City conducted a “Request for Developer Qualifications” that was issued December 7, 2004. Because of the riverfront location, there was considerable developer interest. However, with the uncertainty regarding the environmental conditions at the site at that time, no developer was selected as a result of the initial RFQ process. Environmental site assessments were initiated shortly thereafter during 2006. The Alderman of the 1st Ward, Doug Mark, has been kept informed of the status of this property from the time of initial purchase by the City.

An adjacent property to the south, the 20 acre Commonwealth Edison property, has also been a focus of Brownfield redevelopment initiatives including negotiations between the City and Commonwealth Edison.

7. Key Community Concerns: Ingersoll

The City of Rockford purchased this site during 2002. Through the public process, the following goals for the Ingersoll site have been identified:

- Provide environmental cleanup of the buildings and site to enable the adaptive reuse of the main structures as a mixed use complex that includes retail, indoor sports and access to the river:
- Provide environmental cleanup of the smaller buildings to the east to enable adaptive reuse as support uses to the main use
- Continue to refine the Redevelopment Plan for the area to include the Com Ed site as well as the Illinois Railway Bridge across the Rock River immediately south of the Com Ed property. This rail road bridge will soon become City property.

8. Continued Community Involvement

Alderman Doug Mark has been contacted regarding the status of the Environmental Assessment and intention to move forward with the Cleanup of the Ingersoll site. The Public Comment Period and Public Hearing will be initial steps towards a continuing Public Process for the Ingersoll site Cleanup and Redevelopment as well as similar initiatives at adjacent and nearby Brownfield sites, especially the Commonwealth Edison site and the Rockford Watch Factory site.